

# UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/651,889	89 08/30/2000		Ritsuko Kawasaki	0756-2205	2171	
22204	7590	10/19/2005		EXAMINER		
NIXON PEA		•	FARAHANI, DANA			
401 9TH STREET, NW SUITE 900				ART UNIT	PAPER NUMBER	
WASHINGTON, DC 20004-2128				2891		
				DATE MAILED: 10/19/2005	DATE MAILED: 10/19/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)				
		09/651,889	KAWASAKI ET AL.				
	Office Action Summary	Examiner	Art Unit				
		Dana Farahani	2891				
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the c	orrespondence address				
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period we are to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	. the mailing date of this communication.  (35 U.S.C. § 133).				
Status							
1)⊠	Responsive to communication(s) filed on 25 Ju	ıly 2005.					
2a) <u></u> ☐	This action is <b>FINAL</b> . 2b)⊠ This	action is non-final.					
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
	closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	33 O.G. 213.				
Disposit	ion of Claims						
5)□ 6)⊠ 7)□	Claim(s) 1-3 and 10-24 is/are pending in the ap 4a) Of the above claim(s) is/are withdray Claim(s) is/are allowed.  Claim(s) 1-3 and 10-24 is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or	vn from consideration.					
Applicat	ion Papers		•				
9)[] 10)[]	The specification is objected to by the Examine The drawing(s) filed on is/are: a) access applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex	epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).				
Priority (	under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
2) Notice 3) Infor	nt(s) ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) er No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:					

#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1, 11-16, 18, and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US Patent 5,877,512), newly cited.

Kim discloses in figure 3 a TFT with a channel region 27; wherein a portion of the channel region is concaved shaped in a channel width direction (and convexed shaped when the figure is viewed while the page is turned 180 degrees), the channel width direction being parallel to a plane of the substrate. Note that concave or convex shapes, here, are referring to the indentation that can be seen in the channel region, which is consistent with applicants' concave/convex shapes. See, for example, figure 1A of the instant application.

### Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Application/Control Number: 09/651,889 Page 3

Art Unit: 2891

4. Claims 2, 3, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim as applied to claim 1 above, and further in view of the Japanese patent [4]04152676A, previously cited.

Kim substantially discloses the limitations in the claims, as discussed above, except for zero or one grain boundary in the channel forming region.

The Japanese patent discloses in the abstract that the grain boundary in the channel region of a transistor is limited to one. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to limit the grain boundary of the channel region to one or zero in order to control the device characteristics of the transistor.

5. Claims 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kim, as applied to claims 1 and 16 above, and further in view of the Japanese patent 2001028338, previously cited.

Kim discloses the claimed invention, but does not disclose the thin film transistor is incorporated in to electronic devices such as camera. The Japanese patent '338 discloses thin film transistor used in digital camera and personal computer (see the second paragraph below the abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the thin film transistor in the devices such as cameras so those devices have electronic components with improved characteristics.

### Response to Arguments

6. Applicant's arguments with respect to the previously rejected claims have been considered but are most in view of the new ground(s) of rejection.

Application/Control Number: 09/651,889

Art Unit: 2891

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Farahani whose telephone number is (571)272-1706. The examiner can normally be reached on M-F 9:00AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on (571)272-1722. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

D. Farahani

HÓAI PHAM PRIMARY EXAMINER